

PO Facility Risk Assessment

Name(s) of Risk Team Members: R. Gill, K. Kusche, S. Shapiro, M. Zarcone	Point Value → Parameter ↓	1	2	3	4	5
Area/Facility Description Title: ATF Building 820	Occupancy or Use	≤once/year	≤once/month	≤once/week	≤once/shift	>once/shift
Area/Facility # (if applicable): PO-FRA-005						
Area/Facility Description: General Accelerator Test Facility issues.	Severity	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability
	Likelihood	Extremely Unlikely	Unlikely	Possible	Probable	Multiple
Date: May 2, 2005	Rev.#: 0					
Reason for Revision (if applicable):				Comments:		

Physical Item or Activity	Hazard(s)	Control(s)	Risk with Controls in Place				Control(s) Added to Reduce Risk	Risk with Additional Controls in Place				% Risk Reduction
			Occupancy A	Severity B	Likelihood C	Risk* AxBxC		Occupancy A	Severity B	Likelihood C	Risk* AxBxC	
Ionizing radiation – general areas	Residual and external radiation	Postings, training, shielding, access controls, RCD surveys	5	1	2	10						
Ionizing radiation – primary beam	Unshielded electron beam	Postings, training, shielding, access controls, RCD surveys, ESRs, RWP, dosimetry	1	5	1	5						
Ionizing radiation – secondary beam	Unshielded beams, external radiation	Postings, training, shielding, access controls, RCD surveys, ESRs, RWP, dosimetry	1	5	1	5						
Ionizing radiation – target room	Unshielded beams, external radiation	Postings, training, shielding, access controls, RCD surveys, ESRs, RWP, dosimetry, area sweeps	4	1	1	4						
Contamination	Residual radiation, external or internal radiation, activated materials	Postings, training, RCD surveys, RCD oversight, RWP, ESRs, PPE, friskers, keeping contamination areas minimized, response to spills	2	1	1	2						
RF Cavities	X-rays	Postings, training, shielding, access controls, ESRs, RWP	2	1	1	2						
Electrical	Physics general electrical issues	See PO-FRA-003	2	2	1	4						

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			Risk with Controls in Place					Risk with Additional Controls in Place				
Physical Item or Activity	Hazard(s)	Control(s)	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	% Risk Reduction
Housekeeping	Physics general housekeeping issues	See PO-FRA-002	5	1	1	5						
Fire	Physics general fire issues	See PO-FRA-004	5	3	1	15						
Cryogenic fluids	Oxygen Deficiency Hazards, suffocation	Cryogenic Safety Committee reviews, ODH analysis, ESRs, posting, training, ventilation, quantity control	4	5	1	20						
	Frostbite	PPE, training, work planning, ESRs	3	2	2	12						
	Being struck by an object due to a pressure release	Postings, maintenance, training, work planning, Cryogenic Safety Committee reviews, procedures, PPE, pressure relief systems, Tier one inspection, pressure testing	3	2	1	6						
SF ₆ and other compressed gases	Oxygen Deficiency Hazards, suffocation	LESHC safety reviews, SAD, ODH analysis, ESRs, posting, training, ventilation, quantity control	4	5	1	20						
Compressed gases	Fire, explosion	Work planning, ESRs, segregation, training	3	2	2	12						
Pressurized systems	Being struck by an object such as flying debris	Postings, PPE, maintenance, training, work planning, procedures, interlock systems, Certification/testing of pressure related equipment, Tier 1 inspections, codes and standards usage	3	3	2	18						
Work at heights	Falls to lower level, such as falling from a ladder or over a railing	Postings, barriers, fall protection, maintenance, training, work planning, procedures, Tier 1 inspections, PPE, approved scaffolding and platforms, approved ladders, anti-slip surfaces	3	3	3	27						

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Physical Item or Activity	Hazard(s)	Control(s)	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	% Risk Reduction
Lasers	Thermal radiation exposure and eye damage	Barriers, enclosed beam paths, interlock systems, postings, training, LSO review, work planning, PPE, procedures, Tier 1 inspections, warning systems	4	4	2	32						
Magnetic fields	Adverse mechanical force exerted on ferromagnetic objects and or to electronic/medical implants	Barriers, warning systems, postings, training, ESRs, work planning, procedures, Tier 1 inspections, magnetic safety reviews	4	3	2	24						
Chemicals	Personnel exposure, fire, explosions	Postings, storage, PPE, maintenance, training, ESRs, procedures, Tier 1 inspections, CMS, MSDS	3	2	2	12						
Machine shop use	Physics general machine shop use	See PO-JRA-011	1	4	3	12						
Further Description of Controls Added to Reduce Risk:												
*Risk:	0 to 20 Negligible	21 to 40 Acceptable	41 to 60 Moderate				61 to 80 Substantial				81 or greater Intolerable	